

length, the lobes equal. Ventrals more forward than in the other species, decidedly in advance of the dorsal, and attached at one-third of the entire length; their axillary scale very small. Pectorals narrow, reaching beyond them. No long folds of skin accompanying the rays of the vertical fins.

COLOUR.—Not noticed in the recent state, in which, judging from its appearance in spirit, it was probably silvery, or perhaps golden, with somewhat of an olivaceous hue becoming deeper on the back. There are evident remains of a bright longitudinal lateral band: also of a black spot at the base of the caudal. The dorsal and the anterior portion of the anal incline to dusky: the pectorals and ventrals are slightly dusky at their extremities; there is also a large irregular dusky stain on the back and shoulders anterior to the dorsal fin.

A *second specimen* differs from the above in being a trifle smaller, and not quite so deep in the body. The anal is also decidedly scabrous, as in the *T. scabripinnis*, and has one ray less in it. The colours are similar, excepting that the fins are rather less dusky, and the large dusky stain on the back and shoulders is wanting.

Habitat, Maldonado.

This species is one of several that were taken by Mr. Darwin at Maldonado, in the lake that had been suddenly drained, before alluded to. It is immediately distinguished from all the others in this genus above described, by its small mouth and abbreviated lateral line. The circumstance of the anal fin being scabrous in only one of the specimens leads to the suspicion that this may be a sexual character, perhaps common to this and several species; and, judging from its somewhat less depth, I conceive the specimen so distinguished in this instance to be a male.

HYDROCYON HEPSETUS. Cuv.

Hydrocyon hepsetus, Cuv. Reg. An. (ed. 2) tom. ii. p. 312.

— falcatus, Freycinet, (Voyage) Zoologie, p. 221, pl. 48. fig. 2.

FORM.—Back rising slightly from the nape, whence the profile in front falls obliquely in nearly a straight line to the mouth. Depth contained about three and a half times in the length, caudal excluded. Both head and body much compressed, the greatest thickness being only two-fifths of the depth. The length of the head equals the depth of the body. Snout appears rather pointed when the jaws are shut; when open, the lower jaw is a little the longest. Gape considerable. Maxillary long, commencing before the eyes, and reaching to a vertical from the posterior part of the orbit; inclining downwards, lapping obliquely in part over the lower jaw, gradually widening towards the posterior extremity, which is rather obliquely rounded. Inter-maxillary with two sharp canines in front, then on each side four or five very small hooked teeth, then another large canine, though not so large as those in front; behind this commences the maxillary, which is armed all along its margin with a regular row of small equal hooked teeth, resembling sharp serratures; a similar row on each palatine, but none on the vomer or tongue; this last pointed, and free at the tip. Lower jaw with two strong canines in front, larger than those in the upper, and fitting into two holes above, when the mouth is shut; on each side of these are three half their size, but increasing backwards, placed at rather wide

intervals; then follow a row of close, minute, sharp teeth, similar to those on the edge of the maxillary. Eyes rather large, their diameter not quite one-fourth the length of the head, distant one diameter and a quarter from the end of the snout. Suborbital large, consisting of three pieces. Preopercle rectangular. A row of pores, not very distinct, along the under part of the lower jaw, thence continued along the limb of the preopercle. Opercle and subopercle taken together with the posterior margin forming a slight but regular curve, with scarcely any salient angle.

Head naked; scales on the body of moderate size, arranged in somewhat oblique rows, especially below the lateral line; one from the middle of the side below the lateral line of an irregularly rounded form, the posterior margin rather sinuous, the disk with numerous fine concentric striæ, but no deeper-cut striæ on the basal portion. About sixteen scales in a vertical row, and fifty-seven or fifty-eight in the lateral line: this last bending downwards in a curve which falls below the middle of the depth. Scales on the lateral line not larger than the others.

The dorsal answers to the space between the ventrals and anal; its height equals the depth to the lateral line. Anal long, commencing exactly under the last ray of the dorsal; the first part of this fin as high as the dorsal, but the rays, beyond the fifth, gradually decreasing; three spines, the first two very minute; the last soft ray double. Caudal in this specimen injured. Adipose and last ray of the anal in the same vertical line. Pectorals two-thirds the length of the head, attached very low down beneath the terminating portion of the gill-flap, narrow and slightly falcate, reaching to the ventrals, which last are one-fourth shorter. A long narrow scale in the axilla of each ventral one-third the length of the fin itself.

B. 4; D. 11; A. 3/26; C. 22, &c.; P. 12; V. 8.

Length 4 inches 3 lines.

COLOUR.—“Bluish silvery.”—D.—Some appearance of a dusky spot at the base of the caudal prolonged in a line along the middle rays, but scarcely any trace of a humeral one. The dorsal and anal incline a little to dusky.

Taken at Maldonado, in a fresh-water lake, in June. I have scarcely any doubt of its being the *H. falcatus* of the Zoology of Freycinet's voyage, the figure of which it exactly resembles, excepting that the humeral dark spot, if it ever existed, and which is not mentioned in Mr. Darwin's notes, is now almost entirely effaced. It is probable, however, that there are two or three species nearly allied, for which reason I have been the more particular in my description. The *H. Hepsetus* of D'Orbigny* appears to differ from the *H. falcatus* of Freycinet (with which last Cuvier associates his name of *Hepsetus*,) in having the lateral line curving upwards rather than downwards, and the caudal fascia as well as the humeral spot more marked. The *Salmo falcatus* of Bloch is probably distinct from both.

* Voy. dans L'Amer. Mérid. Atl. Ichth. pl. 9. fig. 2.